

Robot dream

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Abstract

© Springer International Publishing Switzerland 2016. In this position paper we present a novel approach to neurobiologically plausible implementation of emotional reactions and behaviors for real-time autonomous robotic systems. The working metaphor we use is the “day” and “night” phases of mammalian life. During the “day” phase a robotic system stores the inbound information and is controlled by a light-weight rule-based system in real time. In contrast to that, during the “night” phase the stored information is been transferred to the supercomputing system to update the realistic neural network: emotional and behavioral strategies.

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Keywords

Affective computing, Artificial emotions, Robotics, Spiking neural networks